

BIOLOGY OF MORPHS OF BRACHYCOLUS ASPARAGI MORDVILKO

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A generalized life cycle and biology of the morphs are described for Brachycolus asparagi Mordvilko. Oviparae laid overwintering eggs on the asparagus ferns (Asparagus officinalis L.) beginning in September. The eggs hatched in late March and developed into fundatrices that established themselves on the emerging asparagus spears. A fundatrix gives birth to about 18 nymphs as compared to 54 nymphs for an apterous virginopara. In summer, the apterous morph had a 33.5% higher intrinsic rate of increase than the alate morph. Crowding of nymphal asparagus aphids increased wing production. The fecundity curve for the apterous virginoparae peaked once, early in their reproductive phase, whereas the curve for the alate virginoparae peaked a number of times and showed that their reproductive phase spanned over most of their adult life. A single sexupara could give birth to oviparae, as well as to male and virginoparous morphs. The oviparae produced an average of 10.5 eggs. Males were capable of multiple matings.